Full-orbit Studies of Alfven Eigenmode Induced Fast-ion Losses in DIII-D$^{1}$ G.J. KRAMER, R. NAZIKIAN, N.N. GORELENKOV, R.B. WHITE, Princeton Plasma Physics Laboratory, M.A. VAN ZEELAND, General Atomics, W.W. HEIDBRINK, UC-Irvine — In recent experiments at DIII-D, cases of a significant discrepancy between measured and predicted fast-ion pressure profiles have been documented. In the region of enhanced fast-ion diffusion strong Alfvenic activity was observed. In this paper we present results of full-orbit simulations of fast-ion transport and investigate to what extent the finite Lamor radius influences fast-ion transport. The simulations are done with the SPIRAL code and include the full magnetic and electrical field fluctuation contributions from the AEs.

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